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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/384,315	08/27/99	BOUILLLOUX	A ATOCM-154

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EXAMINER

SELLERS, R

ART UNIT	PAPER NUMBER
1712	8

DATE MAILED: 03/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.		Applicant(s)	
	09/384,315		BOUILLLOUX ET AL.	
	Examiner		Art Unit	
	Robert Sellers		1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 1999 and 20 February 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 10-16, 18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|---|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>8</u> . |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u> . | 20) <input type="checkbox"/> Other: |

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Applicants' attorney John A. Sopp in a telephone election conducted March 1, 2001 specific (A) to be a copolymer of ethylene and glycidyl methacrylate, and (B) to be a copolymer of ethylene and maleic anhydride. Accordingly, claims 10-16 and 19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-9 and 17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Components (A), (B) and (C) designated as compounds in claim 1, lines 4, 6 and 8 and as "a product" on page 2, lines 6, 7 and 9 of the specification are not accurately categorized. The specification describes **(A)** as either a copolymer of ethylene and an unsaturated epoxide (page 3, lines 16-18), a polyolefin grafted with an unsaturated epoxide (page 3, lines 16-18), or a compound having two epoxide groups (page 4, lines 22-24), **(B)** as either a copolymer of ethylene and an unsaturated carboxylic acid anhydride, or a polyolefin grafted with an unsaturated carboxylic acid anhydride (page 4, lines 27-29), and **(C)** as a partially or completely hydrolyzed

copolymer of ethylene and an unsaturated carboxylic acid anhydride, a partially or completely hydrolyzed copolymer of a polyolefin grafted with an unsaturated carboxylic acid anhydride (page 5, lines 11-15), or an α,ω -aminocarboxylic acid (page 5, lines 22-24).

There is no enablement for (A) being an unsaturated epoxide, (B) being an unsaturated carboxylic acid anhydride and (C) being an unsaturated carboxylic acid. Each of these terms denote compounds with a single unsaturated moiety and one epoxide, anhydride or carboxylic acid group, respectively, which is not enabled by the ethylene copolymers and grafted polyolefins disclosed in the specification.

More favorable consideration would be given to claim 1 comprising the species appropriate to each component presented in the first paragraph following the statement of the rejection. Component (A) would be more enabled by the language "(A) comprising a copolymer of ethylene and an unsaturated epoxide, a polyolefin grafted with an unsaturated epoxide, or a product having two epoxide groups other than said copolymer and polyolefin."

The terms "compound" and "product" in claim 1, lines 4, 6 and 8 as well as page 2, lines 6, 7 and 9 ("a product"); page 3, line 14; page 4, lines 22 and 25; and page 5, lines 11 and 13 ("products") should be deleted to identify the components merely by "(A)", "(B)" and "(C)" which properly embraces the enabled polymeric species along with the product having two epoxide groups disclosed on page 4, lines 22-24 with respect to (A) and the α,ω -aminocarboxylic acid regarding (C).

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-9 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(A) being an unsaturated epoxide, (B) being an unsaturated carboxylic acid anhydride and (C) being an unsaturated carboxylic acid denote compounds with a single unsaturated moiety and one epoxide, anhydride or carboxylic acid group, respectively, which do not clearly define the multifunctional polymers within the realm of (A), (B) and (C) as well as the polyepoxide with respect to (A) and the α,ω -aminocarboxylic acid regarding (C).

Withdrawn claims 10 and 15 are identical.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 5, 7-9 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent No. 6-299052.

The Japanese patent discloses a thermoplastic polyester or polyamide having incorporated therein an ethylene-methacrylic acid ionomer, an anhydride-grafted ethylene-(meth)acrylate copolymer and an ethylene-glycidyl methacrylate copolymer. The claimed unsaturated carboxylic compound (C) encompasses a the neutralized carboxyl-functional copolymer of the Japanese patent.

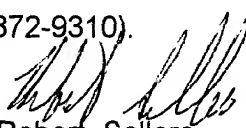
The Japanese patent does not recite (B) as the ethylene/alkyl meth)acrylate/maleic anhydride copolymer of claim 3 or 6 since it sets forth a non-grafted anhydride-functional copolymer. More favorable consideration would be given to the claims wherein (B) of claim 1 is limited to a copolymer of ethylene and an unsaturated carboxylic acid anhydride along with the cancellation of claims 3 and 6.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lausberg et al (col. 7, lines 43-45) and Ohmae et al Patent No. 5,405,909 (col. 6, lines 53-54) provide a general teaching of combinations of impact modifiers or polyfunctional compounds, respectively, which include epoxy-, anhydride- and carboxyl-functional ethylene copolymers. However, there are no examples utilizing the three functionally-diverse copolymers together and there is no motivation to blend them.

Japanese Patent No. 63-128059 is drawn to a thermoplastic polyester combined with a sodium salt of an ethylene-methacrylic acid copolymer and either an anhydride-modified ethylene-butene copolymer or an ethylene-glycidyl methacrylate copolymer. There is no impetus to use the anhydride- and glycidyl-functional copolymers together.

Any inquiry concerning this communication should be directed to Robert Sellers at telephone number (703) 308-2399 (Fax no. (703) 872-9310).



Robert Sellers
Primary Examiner
Art Unit 1712

RS

3/9/01